REMARKS

I. Introduction

In response to the pending Office Action, Applicants have amended claims 1, 12, 19 and 20 so as to further clarify the intended subject matter of the present invention. Support for the foregoing amendment can be found, for example, on page 4, lines 1-7 and page 9, lines 6-14. No new matter has been added.

For the reasons set forth below, it is respectfully submitted that all pending claims are patentable over the cited prior art references.

II. The Rejection Of The Claims Under 35 U.S.C. § 103

Claims 1-20 were rejected under 35 U.S.C. § 103 as being obvious over the Applicants' Admitted Prior Art (AAPA) in view of USP Pub. No. 2003/0101311 to Chang and further in view of USP No. 6,081,149 to Veendrick. For the reasons set forth below, it is respectfully submitted that the pending claims are not rendered obvious by the AAPA, Chang or Veendrick either taken alone or in combination with one another.

As noted in the previous response, the present invention provides a data transmission system that allows for a reduction in power consumption in devices capable of processing data corresponding to IEEE 1394 standards for digital AV equipment and data corresponding to IEEE 1394 standards for PC oriented equipment. Specifically, the present invention allows a reduction in the power consumption of such devices by turning off the clock supplied to protocol circuits which are not in use. Importantly, the present invention determines whether to shut off or turn on a clock signal by analyzing the packet of data to be transmitted/received and/or the control information from the interface control circuit. Thus, in accordance with the present invention, a packet transmitted to/from an interface control circuit is analyzed to specify/determine which

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protocol circuit will be utilized, and the clock signals for the protocol circuits which are not to be utilized are shut off, thereby resulting in a reduction of power consumption.

In response to the foregoing argument presented in Applicants' previous response, it was asserted by the Examiner that the pending claims do not recite "determining the type of data to be transmitted and then utilizing this information to determine which protocol circuit should be provided with a clock signal" (*see*, Office Action, page 6). In an effort to expedite the prosecution of this application, Applicants have further amended the claims to make the foregoing more clear. Referring, for example, to claim 1, as amended the claim expressly recites:

> determination means for obtaining 1394-control-information, *which includes a type of data to be transmitted,* from the interface control semiconductor integrated circuit and *making a determination whether to supply or shut off the clock with respect to each of the protocol circuits based on the type of data to be transmitted,* which is included in the 1394-control-information.

In view of the foregoing amendment, it is clear that the claim recites the language alleged to be omitted by the Examiner prior to the foregoing amendment.

Turning to the cited prior art references, it is again acknowledged that neither the AAPA nor Veendrick disclose the recited determination means of the present invention. Chang is relied upon for this purpose. However, as previously explained, it is clear that Chang does not disclose the recited determination means. Specifically, as set forth in paragraph [0076] of Chang, which appears to be the only paragraph of Chang that discusses means for reducing power consumption, Chang only discloses reducing clock speed or turning off functional blocks based on the amount of bus traffic. In other words, **Chang only discloses adjusting power consumption based on the *amount* of data to be transmitted.** Chang does not disclose or suggest, for example, determining the type of data to be transmitted and then utilizing this information to determine which protocol circuit should be provided with a clock signal. As

noted above, the determination means of the present invention analyzes the control information or packet information to determine which protocol circuit is required and then provides a clock signal to the required protocol circuit based on the determination. Indeed, the amount of data to be transmitted is not relevant to the determination means of the present invention.

As such, it is clear that Chang does not disclose or suggest the determination means of the present invention, which determines which protocol circuit to activate based on the interface control information or the packet information (and not on the amount of data to be transmitted as taught in Chang). Moreover, as Chang does not even mention the problems associated with the IEEE 1394 bus interface, which are solved by the present invention, it cannot be properly concluded that the determination means of the present invention is merely an obvious modification of Chang, as such a conclusion would clearly be a case of impermissible hindsight utilizing the current specification to reconstruct the claimed invention.

Accordingly, as each and every limitation must be disclosed or suggested by the prior art references in order to establish a prima facie case of obviousness (*see*, M.P.E.P. § 2143.03), and the combination of the AAPA, Chang and Veendrick fails to do so for at least the foregoing reasons, it is respectfully submitted that the pending claims are patentable over the cited prior art references.

Moreover, recognizing after the fact that such a modification would provide an improvement or advantage, without suggestion thereof by the prior art, rather than dictating a conclusion of obviousness, is an indication of improper application of hindsight considerations. Simplicity and hindsight are not proper criteria for resolving obviousness. *In re Warner*, 379 F.2d 1011, 154, USPQ 173 (CCPA 1967).

It is only Applicants' disclosure that discloses a IEEE 1394 interface device wherein the control information or packet information is utilized to determine which of a plurality of protocol

circuits is required for performing the given transmission/reception of data and then provides a clock signal to the required protocol circuit based on the determination. Neither Chang nor Veendrick describe or suggest such features. Moreover, neither Chang nor Veendrick even acknowledge the problems solved by the present invention. Thus, the only motivation of record for the proposed modification of the device of the AAPA, Chang or Veendrick to arrive at the claimed invention is found in Applicants' disclosure which, of course, may not properly be relied upon to support the ultimate legal conclusion of obviousness under 35 U.S.C. §103. *Panduit Corp. v. Dennison Mfg. Co.*, 810 F.2d 1561, 227 1 USPQ2d 1593 (Fed. Cir. 1987).

For all of the foregoing reasons, it is respectfully submitted that the pending claims are patentable over the cited prior art references.

III. All Dependent Claims Are Allowable Because The Independent Claims From Which They Depend Are Allowable

Under Federal Circuit guidelines, a dependent claim is nonobvious if the independent claim upon which it depends is allowable because all the limitations of the independent claim are contained in the dependent claims, *Hartness International Inc. v. Simplimatic Engineering Co.*, 819 F.2d at 1100, 1108 (Fed. Cir. 1987). Accordingly, as the pending independent claims are patentable for the reasons set forth above, it is respectfully submitted that all pending dependent claims are also in condition for allowance.

IV. Request For Notice Of Allowance

Having fully responded to all matters raised in the Office Action, Applicants submit that all claims are in condition for allowance, an indication for which is respectfully solicited.
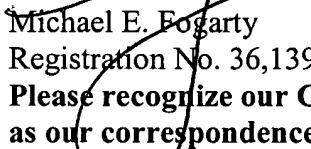
If there are any outstanding issues that might be resolved by an interview or an Examiner's amendment, the Examiner is requested to call Applicants' attorney at the telephone number shown below.

To the extent necessary, Applicants petition for an extension of time under 37 C.F.R. 1.136. Please charge any shortage in fees due in connection with the filing of this paper, including extension of time fees, to Deposit Account 500417 and please credit any excess fees to such deposit account.

Respectfully submitted,

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